UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,683	11/09/2006	Michael J. Elder	09086-00228-US	8582

34872 7590 07/09/2008

Basell USA Inc.
Delaware Corporate Center II
2 Righter Parkway, Suite #300
Wilmington, DE 19803

EXAMINER	
SOLOLA, TAOFIQ A	
ART UNIT	PAPER NUMBER
1625	
MAIL DATE	DELIVERY MODE
07/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,683	ELDER ET AL.	
	Examiner	Art Unit	
	Taofiq A. Solola	1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *01 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-8 and 10-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-8, 10-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claims 1-8, 10-15 are pending in this application.

Claim 9 is deleted.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-8, 10-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The phrase "C1-C40 carbon-containing group" is not defined in the specification so as to ascertain the structure of compounds that are included and/or excluded by the phrase. Appropriate correction is required. In patent examination, it is essential for claims to be precise, clear, correct, and unambiguous. *In re Zletz*, 893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir. 1989). Applicant must show possession of the invention by describing it with all the claimed limitations. *Lookwood v. American Airlines Inc.* 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed Cir. 1997).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-8, 10-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "C1-C40 carbon-containing group" is not defined in the claims so as to ascertain the metes and bounds of the claims. Appropriate correction is required.

Response to Argument

Applicant's arguments filed 4/1/08 have been fully considered but they are not persuasive. Applicant contends one of ordinary skill in the art would know what phrase "C1-C40 carbon-containing group" is. This is not persuasive because one of ordinary skill in the art would not know other atoms/elements contained in the groups, and how many thereof. The requirement of 35 USC 112, is not what is known or obvious to one of ordinary skill in the art but a "full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same", *Lookwood v. American Airlines Inc.* 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed Cir. 1997). See also the status above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8, 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryabov et al., Organomettalics (2002), Vol. 21(14), pp. 2842-2855. Published on the Web 6/8/02.

Applicant claims a process of making compounds of formula I, comprising reaction of a compound of formula II with a compound of formula III or IV, in the presence of at least one strong organic acid and at least one water absorbent. The reaction temperature is between 50-

110°C. In preferred embodiments, the organic acid is alkylsufonic acid and the water absorbent is phosphorous pentoxide. Applicant also claims variable ratios of formula II: III and different amounts of the acid and absorbent.

Determination of the scope and content of the prior art (MPEP 2141.01)

Ryabov et al., teach similar processes wherein in scheme 2, H_3PO_4 and phosphorous pentoxide are used while in scheme 4, alkylsufonic acid and phosphorous pentoxide are used. In scheme 2, the reaction is at 50°C while in 4 it is at room temperature. See paragraph 2, page 2850 and paragraph 1, page 2852.

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the instant invention and that of Ryabov et al., is that applicant combines the 2 processes by Ryabov et al., into one process and claims 50-110°C instead of 50°C or room temperature.

Finding of prima facie obviousness---rational and motivation (MPEP ∋2142.2413)

However, temperature range of 50-110°C embraces 50°C. Changing the temperature, ratios of formula II:III and the amounts of the acid and absorbent is a mere optimization of variables, which is not patentable absent unexpected result due to each variable, which is different in kind and not merely in degree from that of the prior art. *In re Aller,* 22 F.2d 454,105 USPG 233 (CCPA, 1955), *In re Boesch and Slaney,* 205 USPQ 215 (CCPA, 1980). For formula IV to produce formula I, it must dissociate in solution to 2 molecules of formula III.

Therefore, the instant invention is prima facie obvious from the teaching of Ryabov et al. One of ordinary skill in the art would have known to change the temperature, ratios of the starting reagents and the amounts of the acid and absorbent, at the time the invention was made. The motivation is to optimize the yield of the product.

Alternatively, Applicant has done no more than combine separate but well-known inventions (two separate processes by Ryabov et al). While the combination may perform a useful function it did no more than what they would have done separately. *In re Anderson,* 396 U.S. 57, 163 USPQ 673 (1969) cited in *KSR Int. Co. v. Teleflex Inc*, 550 U.S. ----, 82 USPQ2d 1385 (2007).

When a patent simply arranges old elements with each performing the same function it had been known to perform and yields predictable result, the combination is obvious. *In re Sakraida,* 425 US 273, 189 USPQ 449 (1976) cited in *KSR, supra.* A patent for such combination "obviously withdraws what is already known into the field of its monopoly." *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.,* 340 U.S. 147, 187 USPQ 303 (1950), cited in *KSR, supra.*

Response to Argument

Applicant's arguments filed 4/1/08 have been fully considered but they are not persuasive. Applicant argues the instant process is different from scheme 2 and 4 of the prior art. This is not persuasive because when R1 and R2 are H, and when they combine to form a cyclic ring, the starting reagent is the same as scheme 2 and 4 respectively. So, applicant combined the two processes by the prior art into one and used alkylsufonic acid as in scheme 4 instead of H_3PO_4 in scheme 2. The water absorbent is phosphorous pentoxide in the instant and prior art processes.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taofiq A. Solola, PhD. JD., whose telephone number is (571) 272-0709.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres, can be reached on (571) 272-0867. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

/Taofiq A. Solola/

Primary Examiner, Art Unit 1625

July 1, 2008